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PREPARATION OF FLUE-CURED TOBACCO FOR MARKET
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It is a matter of common knowledge that much of the tobacco offered for sale is poorly sorted. This fact was brought clearly to the attention of farmers in a press statement issued by tobacco boards of trade in eastern North Carolina. The statement was as follows:

T O B A C C O F A R M E R S

In view of the large quantity of tobacco offered for sale which has been badly graded, in many instances green and brown leaves mixed in the same bundle, we have been requested by the warehousemen and representatives of the buying companies to urge the farmers to give more thought to the importance of careful preparation of tobacco for market.

It Is Important That You Give Careful Attention To
the Grading of Low Grades as Well as the
Better Quality Tobaccos.

Tobacco Offered for Sale In a Mixed Condition Or With
Objectionable Strings Or Other Foreign Matter, Regard-
less of the Quality, Does Not Attract All Buyers.

Carefully Graded-Nicely Handled-Clean Tobaccos
ALWAYS BRING TOP PRICES

The principal buyers of flue-cured tobacco are manufacturers who buy for their own factories and dealers who purchase and pack tobacco for resale or for export. In addition, there are speculators whose operations consist largely of buying tobacco which, because of poor preparation for market or other reasons, sells for less than its current market value. Such tobacco often nets the speculators a profit through resale of it on the auction floors, without incurring any expenses for conditioning, packing, storage, or shipping. In some cases the speculators re-sort the tobacco. Usually the re-sorting is done by bundle with some leaf-plucking, but sometimes the tobacco is untied and is leaf-picked. In either case the object is the same - to correct the sorting mistakes made by the farmer and to resell the tobacco, properly sorted, at a profit.

By exercising the skill and care that the farmer failed to use, a speculator sometimes makes more profit on a lot of tobacco than the farmer received in gross returns for several months of work. By carefully and intelligently sorting tobacco a grower can frequently earn for himself the money which may go to the speculator.

PROPER LIGHT FOR SORTING

The first essential to correct sorting is suitable light. Farmers as a rule do not realize the importance of suitable light for sorting. Under improper light a lot of tobacco may appear to be uniform in quality and color whereas under proper light conditions the same lot may show a mixture.

Sorting rooms should be provided with ample window space. All windows should be in the north side of the building. Sorting should be done only in proper light - never in the direct rays of the sun, or by artificial light, or too early in the morning or too late in the evening. Persons who are sorting tobacco should have their backs to the windows so the light will fall over their shoulders on the tobacco. Skylights, such as are used in auction warehouses, are excellent when properly installed. They should be set into a roof which is sufficiently high to permit proper diffusion of light. This condition is difficult to meet in stripping rooms, whereas windows can be installed along a north wall at small expense. Several windows should be set close together in the wall about $2\frac{1}{2}$ feet above the floor.

If proper lighting of existing buildings is impracticable, growers may use a rectangular tent for sorting. The tent should be made of 10 oz. white duck or canvas. It can be erected outside the building in which tobacco is stored. The light in a tent is about the same as the light in a well lighted warehouse. Tents are inexpensive compared with the cost of buildings and can be used for several years. They should be laundered when they become soiled.

PROPER ORDER FOR SORTING

Tobacco must be in proper "order" for sorting. Order, as used in the tobacco industry, refers to the amount of moisture in tobacco. If in too dry order, tobacco will be injured by breakage during the sorting. On the other hand, if the tobacco is too soft there is danger of discoloration by bruising and, with light-colored tobacco, danger of the color becoming materially darker and thereby decreasing the value. Tobacco is in proper order for sorting when it has absorbed just enough moisture to make the leaves pliable, so that they can be handled readily and can be opened without breaking.

Some growers depend entirely on natural atmospheric conditions to "order" tobacco while others use artificial means when the atmosphere is dry. Whichever method is used, care is necessary. For handling or sorting, it is better for tobacco to be slightly on the dry side than too soft.

SORTING

Sorting is one of the most important operations in preparing tobacco for market. A crop of comparatively poor quality can be sold to best advantage by correct sorting and proper handling, whereas a crop of good quality can be greatly reduced in value by careless sorting and handling. It should be borne in mind that the object of sorting is to bring together, in lots, leaves of similar body, quality, color, and size. Each different lot should be tied into bundles or hands and sold separately.

The procedure in sorting flue-cured tobacco will depend somewhat on the method used in harvesting the crop. The bulk of flue-cured tobacco is harvested by "cropping," or pulling leaves, individually, as they reach the proper degree of ripeness. A small part of flue-cured tobacco is harvested by cutting the plants; this is known as "stalk-cutting." The remarks herein are not directly applicable to stalk-cut tobacco.

Normally, the leaves of flue-cured tobacco grow on the stalk in a certain order or sequence; -Lugs near the bottom; Cutters in the middle; and Leaf, including fillers and tips, from near the middle to the top. These three general divisions - called Lugs, Cutters, and Leaf - are known as groups. The division lines between groups will vary in different fields and with different plants. Crops of superior quality will contain a fourth group, called Wrappers.

Each barn should be bulked separately or at least each bulk should contain tobacco of the same cropping. This is for the purpose of keeping the natural groups, by croppings, from getting mixed. If the character of tobacco found in different sections of a barn is materially different, it is advisable to review the sticks of leaves as they are taken down, and bulk together the sticks that contain similar tobacco. This preliminary separation will save time when the leaves are sorted.

Before sorting a barn of tobacco, some farmers select a dozen or more sticks from the barn and use them in working out the lots to be made in sorting the barn. Sticks for this purpose should be selected with a view of getting, as nearly as possible, the full range of quality, color, and length to be found in the barn. Tobacco from these few sticks is carefully studied and similar leaves are matched to determine the number of grades necessary to obtain uniformity in each lot.

After the qualities and colors of the several lots have been definitely fixed in the mind of the sorter, an effort is made to sort the rest of the barn on the same basis. Sometimes tobacco of another grade, not represented in the selected sticks, will be found and a new lot must be made after the sorting has started. Sticks to be used for the preliminary sorting can be selected at the time the tobacco is taken from the barn and bulked. These selected sticks should be placed on top of the bulk where they will be readily accessible for study before the main part of the bulk is sorted.

Bulking under proper conditions generally improves all qualities of tobacco. Green tobacco is greatly improved when allowed to remain in bulk for some time. Tips normally carry a high percentage of green tobacco which would materially improve if allowed to remain in bulk for several weeks before being marketed. If bulked in proper order green tobacco will lose much of its green color and immature appearance. A marked difference is frequently noted in one week if the weather is warm.

Lugs.—The first cropping or curing from a field normally consists chiefly of plant-bed leaves, unless these have been lost because of unfavorable weather conditions. They are commonly referred to as "primings" or "priming lugs." They are the very thin, pale, silky, and premature leaves which are very low in oil and wax, and of a dull or dingy finish. Primings absorb and give off moisture more rapidly than other lugs which are grainy and ripe. They also have a characteristic odor. The first leaves harvested usually are primings and they should be kept separate. Most of the plant-bed or priming leaves will ordinarily be removed in the first cropping. If some priming leaves are found in the second cropping, they should be separated from the ripe grainy lugs.

The second cropping, and sometimes a part of the third cropping, usually consists of dry-natural lugs, which are distinct from the primings. Instead of being premature they are usually ripe and show a considerable amount of grain, especially in the better qualities. Lugs can be recognized by their thin body, and by a considerable percentage of injury characteristic of leaves grown near the ground. They are shorter than leaves higher up the stalk, with the exception of tip leaves. Lugs are normally of a dull or dingy finish and sometimes carry a noticeable amount of sand which should be shaken from the leaves as the hands are hung.

Lugs should be sorted on the basis of quality and color. The lightest colored lugs usually have the thinnest body. As color and body are usually closely associated in lugs, the color divisions will generally take care of body. Quality in lugs is largely determined by the percentage of injury, size of leaves, maturity, color shade, and finish. The common-quality lugs may carry dingy, and a few burnt and trashy leaves, whereas good quality lugs should be free of such leaves, have fairly clear finish, be thoroughly ripe, with plenty of grain and of uniform color.

When the leaves have been sorted into lots of like quality and color, each lot should be tied into medium-size hands or bundles of 16 to 20 leaves. The tie-leaf should be of the same quality and color as the tobacco in the hand, so that it will not contrast with the leaves it binds together. This seems a small point, but is very important. A green tie-leaf should be used only for tying green tobacco. After being tied, each lot should be placed on separate sticks. The sticks of sorted tobacco can then be bulked, if the tobacco is in safe-keeping order. The bulk should be carefully covered to prevent the tobacco from bleaching, drying out, or absorbing excessive moisture.

Care should be taken to examine the bulks frequently, especially in hot weather, to see that the tobacco is in proper order. If the tobacco is found to be soft and there is danger of mold, the sticks should be taken up in drying weather and hung on tiers until the tobacco has dried sufficiently to keep safely; then it should be rebulked. Sometimes airing the tobacco by rebulking, without hanging, will be sufficient. If so, this is preferable to hanging. If tobacco has been in bulk for some time the leaves have a tendency to stick together and the hands should be shaken gently to separate the leaves and allow the air to pass through them.

Cutters.-In a normal field, when the leaves are cropped and housed at the right time, cutters usually appear in the third cropping. Some cutters may be found with the second cropping and some with the fourth, depending on the growing season, the number of leaves pulled in each cropping, and other factors.

Cutters are thin-to-medium in body and have many characteristics in common with lugs. They do not have the injury associated with leaves grown near the ground, and the leaves are usually longer and wider than lug leaves and have a clearer finish. Cutters generally have fine fibers and the leaf surface has a slightly puckered or wrinkled appearance. Cutters should be carefully sorted according to quality and color. They are divided into two colors, known as lemon and orange. The lemon leaves are generally thin bodied while the orange leaves are normally of medium body. When sorted, the leaves should be tied, hung on sticks, and bulked as in the case of lugs.

Cutters as well as the better qualities of lugs are in strong demand by all manufacturers of cigarettes, and competition is usually keen on all properly sorted lots.

Leaf.-The leaves of this group are thicker, or heavier bodied, than Cutters and usually have more prominent fibers. With the exception of the choice and fine qualities, the leaves are usually narrower and have more pointed tips. The leaves of this group vary considerably in length on individual plants, the tip leaves being the shortest. Leaf does not have characteristics of lugs unless it is very over-ripe. Over-ripe or very grainy leaves of this group are known as "smoking-leaf." Smoking-leaf is distinguished by being low in oil, relatively thin, non-elastic, mellow, and very grainy, and by a considerable amount of injury of a kind different from that characteristic of leaves grown near the ground.

In sorting, smoking-leaf should be kept separate from the straight side. Both should be divided into lots according to quality, color, and size. After leaf has been sorted, it should be tied, hung on sticks, and bulked.

Wrappers. -Wrappers are selected from the leaf and cutter groups and may be described as the fancy leaves of these groups. They must be practically free from injury, must be smooth, elastic, oily, firm, and strong, and must have bright finish and small to medium size and blending fibers. The average crop does not contain any wrappers, and the percentage of wrappers in many other crops is so small that producers are scarcely warranted in making a separate lot for wrappers. On the other hand, if a crop is of exceptional quality and contains a fair percentage of wrappers, it will pay farmers to sort them out.

Wrappers, if properly sorted and handled, command a premium on the markets. The wrapper leaves should be divided into qualities and colors with special attention given to body, as the thin and the medium bodied wrappers are used for different purposes. Wrappers are usually sized according to length and tied in small hands. Wrappers should be handled with special care to prevent injury to the leaves. As with other groups, each quality and color should be segregated, placed on sticks, and bulked. The bulk should be given extra protection to prevent injury or damage from any cause.

GREEN, OFF-COLORED, AND NONDESCRIPT TOBACCO

Most crops of flue-cured tobacco contain green, off-colored, or nondescript tobacco in varying quantities. These relatively inferior qualities, if not separated from other lots, may materially lower the value of good tobacco. Speculators sometimes make handsome profits by plucking a few green, off-colored, or nondescript leaves from a lot and then re-selling the tobacco. This profit would accrue to the grower if reasonable care is taken in sorting. If a barn or curing contains sufficient green, off-colored, or nondescript leaves, separate lots should be made for each.

In curings that contain very little green, off-colored, or nondescript tobacco there may not be a sufficient quantity of each to make separate lots in which case these leaves should be thrown together in one lot.

SIZE OF HANDS

The size, uniformity, and method of tying hands are important. The tobacco trade desires that hands of flue-cured tobacco be of uniform size, not "capped" with the tie-leaf, and contain 16 to 20 leaves each.

Flue-cured tobacco is redried for domestic storage or for export. The percentage of moisture varies according to trade requirements but the amount of moisture should be uniform throughout each hogshead, particularly for export. If hands are very large it is difficult to redry tobacco and with some hands excessively large and others very small the tobacco can not be redried to a uniform percentage of moisture. The tie-leaves should not cover, or "cap," the butts of the hands. The "cap" retards the escape of moisture and makes difficult proper redrying of tobacco.

Tobacco containing bits of cotton twine, used for stringing leaves, is undesirable as foreign matter must be removed before the tobacco is manufactured. The removal of bits of twine is a tedious and expensive operation after tobacco has been pressed into hogsheads but can be easily and cheaply removed by farmers as the leaves are being tied into hands.

Tobacco growers should meet the requirements of the tobacco trade and prepare tobacco for sale in uniform, uncapped hands of 16 to 20 leaves each and take care to remove all bits of twine and other foreign matter. Tobacco prepared for market in this way is more attractive to buyers and usually sells at the highest prices consistent with quality and market demands.

BULKING GRADED TOBACCO

Flue-cured tobacco should be bulked when it has been sorted, tied, and placed on sticks. After curing, it should not be hung in tiers except for the purpose of drying or removing excessive moisture. In placing hands on sticks, each bundle should be divided over the stick and the butt end of the tie-leaf smoothed down with the rest of the bundle. When the tobacco of each barn (or barns of the same cropping) has been sorted, hung on sticks, and temporarily bulked, the tobacco should be rebulked so as to combine or bring together all sticks containing hands of like quality and color. As the temporary bulks are broken, the sticks of tobacco should be carefully matched as to quality and color. This helps to reveal errors in sorting or sticking and to insure uniformity in each lot. This work must be done when there is suitable day light; never by artificial light.

After the sticks have been carefully checked and as the tobacco is rebulked, attention should be paid to the sequence in which the several lots are placed in the bulk. This will facilitate keeping the lots separated in loading and unloading when the tobacco is ready for market. If sorted tobacco remains in bulk for any great length of time before it is marketed, it may be advisable to rebulk from time to time. In rebulking, care should be taken that leaves are not crumpled or otherwise injured. Sheets of paper or other markers should be placed between the lots, in bulking. Loading is often done when the light is poor - sometimes by lantern light - and unless markers are used there is danger of the lots becoming mixed which usually results in loss to the farmer.

Bulks should be built on a well-ventilated wooden floor or platform. Tobacco should never be bulked in contact with the earth or a concrete floor. Bulks should be covered to protect the tobacco, otherwise it may become dirty from dust, faded or bleached from the light, or it may dry out or absorb excessive moisture.

ORDER OF TOBACCO FOR MARKETING

The order, or moisture content, of tobacco when offered for sale is important, especially when sales are extremely heavy or are blocked for any considerable time. If tobacco is too dry it is rough to the touch, does not show to advantage, and suffers considerable injury through breakage in handling. On the other hand, tobacco containing excessive moisture will bruise in handling, may deteriorate in value through becoming darker in color, and may be damaged if not steam-dried within a short time, especially when the weather is warm and the atmosphere humid. When blocked sales occur and tobacco is offered for sale in excess of rehandling facilities, in order to prevent losses, buyers must exercise care in purchasing tobacco, and lots in excessively high order are either passed or bought on a safe margin. In either case the farmer will suffer loss in the proceeds from his product.

Lugs and cutters are in proper order for sale when they are just sufficiently moist to prevent injury in handling. Lugs, especially priming lugs, should be sufficiently dry to rattle slightly when shaken, but not dry enough to break. Tobacco of leaf grades can carry more moisture than lugs and cutters. The tobacco of this group should contain enough moisture to make the tobacco supple but excessive moisture should be avoided. Wrappers should be in fairly soft order when sold. If too dry they will not show the oil, elasticity, smoothness, and finish required to meet wrapper specifications. Wrappers should not, however, contain too much moisture as they bruise and discolor easily when in very high order.

LOADING AND UNLOADING

As the sticks of tobacco are taken from the bulk they should be carefully loaded so that the leaves are not injured or the lots disarranged. Markers between the several lots should be placed with care to make certain that the lots will not become mixed in unloading. Many farmers make a good job of sorting only to get the lots mixed in the rush and excitement of unloading when they get to market. The load of tobacco should be covered with a tarpaulin or other suitable material to protect it from rain, drying out, or getting dusty on the way to market.

Except with stalk-cut tobacco, it is seldom that all groups will be sold at one time. If only lugs or cutters or both are being sold, the usual arrangement is for the lowest quality to be sold first and then in order of quality to the best. If there is a nondescript lot it would come first. If there is no nondescript, then the commonest - whether it be green, off-colored, of the lowest lot of lugs - followed by the next best, and so on to the best lot.

It sometimes happens that a farmer delivers to market at the same time tobacco of two or more curings, in which case he will have tobacco or two or more croppings, and probably of two or three groups. The arrangement then is similar to that followed in marketing stalk-cut tobacco, in which some tobacco of all groups is likely to be marketed at one time. The most commonly accepted practice in marketing all groups

at the same time is to build up from the commonest lug to the best lug, followed by the lowest cutter and then in order to the best cutter. The best cutter should be followed by wrappers if there are any. Then follow with the best leaf, the next best leaf, and so on to the commonest leaf. In this arrangement, the tobacco will be offered for sale in the order it is removed from the plants.

Should all lots offered at one time be of the leaf group, it is customary to arrange the lots so that they will be sold in order of quality from the lowest to the highest. If wrappers and leaf are sold at the same time the lots of wrappers should follow, in order of quality, the best leaf.

The arrangement of lots for sale at auction may be regarded by some as a matter of minor importance, but it is a factor which may, and often does, influence the sale to the advantage or disadvantage of the farmer. It assists both the starter and the buyer, if tobacco is sold in order of quality. Tobacco displayed in this order is more attractive and usually sells to advantage as compared with crops laid out for sale without regard to group or quality.

SIZE OF LOTS

The size or weight of lots offered for sale is important. Very large lots are sometimes regarded with suspicion. Flue-cured tobacco usually varies so much in quality and color that very large lots of uniform quality are exceptional. On the other hand, very small lots are objectionable to warehousemen and buyers and may be unprofitable to the seller. A small basket of tobacco occupies as much floor space as a large basket; warehousemen object to very small lots since they reduce the poundage that can be placed on a warehouse floor. Small lots may be objectionable to buyers, as each lot purchased must be checked, weighed, and identified with warehouse accounts.

The sale and book work for a small lot requires as much time as for a lot of normal size and therefore excessively small lots increase the handling cost to buyers as well as to warehousemen. On flue-cured markets there are usually minimum charges per lot for weighing and auction fees, in addition to the commission charged on all sales. If lots are exceptionally small and the tobacco is of poor quality, it may sell at a price that will not cover warehouse charges. In such cases, and there are many when tobacco prices are low, the excessively small lots could be discarded with profit to the farmer, as any lot that brings less than the charges brings a deficit that is deducted from the sale of other lots.

No definite rule can be given as to the minimum and maximum size lot that should be offered for sale. The size of the lot will depend upon the range of quality, color, and length found in a single curing if properly sorted. Although correct sorting is to the advantage of the farmer, it would be a mistake to take a single barn and draw the divisions too close, for that would mean a number of very small lots. Sometimes if the sorting has been very close, two lots may be so nearly

alike that they could be combined. In other words, a very small lot could be put with another one which corresponds closely in quality and color. But if the lots are small and distinct in quality or color, they should not be mixed together. Sometimes high-quality lots of light weight can be marketed at a profit. In other cases, it would be better to throw away a very small lot of inferior quality than to mix it with a lot of distinctly different tobacco.

There is no good reason for thinking that a lot from the same field and cropping, if properly and uniformly classed, can be too large. However, such lots do not ordinarily exceed 200 to 250 pounds, and larger lots may cause suspicion as to the uniformity of the whole or even suspicion as to nesting by some unscrupulous manipulator. Generally speaking, it may be found advisable to divide a lot when it contains over 250 pounds.

MARKETING

Before selling his tobacco, the grower should have definite and unbiased information as to the quality and approximate market value of his product. Unless this is available, the farmer is without adequate guidance in disposing of a crop which requires many months of hard work and a considerable cash outlay to produce. This information should be on a grade basis.

A grade, in the tobacco trade, is a descriptive name for tobacco of a particular group, quality, and color. A lot properly sorted will naturally fall into one of several groups, one of several qualities, and one of several colors. Therefore, if a farmer knows to what group, quality, and color any lot of tobacco belongs, he knows the grade of that lot. In the United States tobacco standards for flue-cured tobacco, letters are used to represent the groups, as A for Wrappers, B for ordinary Leaf, H for Smoking Leaf, C for Cutters, X for ordinary Lugs, P for Priming Lugs, N for Nondescript, and S for Scrap. Each group is divided into qualities designated by numbers; 1 represents the best of its group, 2 the next best, and so on to the commonest tobacco in each group. For example, A1 would be the best Wrapper, B1 the best Leaf, C1 the best Cutter, etc. The color, which is the third factor, is also designated by certain letters, as L for lemon, F for orange, R for red, D for dark, and G for green. "C3L" is therefore a grade or name which would completely describe a lot of Cutters (C) of third quality (3) in lemon color (L). From this brief explanation of grades, the reader should know in a general way what tobacco is represented by the grade X2F or any other standard grade symbols.

TOBACCO GRADING AND MARKET NEWS SERVICE

The United States standard grades for tobacco are available for use by farmers. The private grades used by manufacturers and dealers are for their own use and their descriptions and specifications are definitely known only to themselves. Farmers who wish to sort and market tobacco according to a definite system should become familiar with the Government standards.

The tobacco inspection service is maintained by the U. S. Department of Agriculture, to familiarize farmers with the standard grades for tobacco and to assist them in marketing their product. Where the service is available, each lot of tobacco should be inspected and graded by Government inspectors. The grade is marked on the warehouse ticket where it can be seen by all. It gives unbiased information as to the quality of each lot. The tobacco price reports issued by the Department show the average selling price for each grade at the time the report is issued. With this information, every farmer can know when his tobacco is selling in line with the market, grade by grade.

